Prediction Level Assessment (PLA) Start: Sub-watersheds & streams at high/v. high risk from **RRISSC** phase Hydrologic relations 1. USGS regional curves 2. Drainage area 3. Field calibration of 4. Final determination of bankfull discharge, bankfull discharge, cross-sectional area bankfull dimension Stream morphology 6. Detailed morphological 5. Stream classification relations: dimensionless ratios Stability analysis 7. Channel stability analysis 9. Output: streambank 8. Bank erosion prediction (BEHI, NBS) erosion rates, tons/yr Flow/sediment relations Sediment rating curves 10. Flow modification 13. Ref dimensionless sediment, bedload rating curves 11. Dimensionless flow duration curves 14. Convert to dimensional susp sediment, bedload rating curve 12. Measure bankfull Q, susp. sediment, bedload 16. Calculate sediment yield for baseline existing condition: 15. Convert to dimensional flow related sediment yield flow duration curve 17. Output: flow-related increase above baseline Channel & sediment supply changes from 18. Changed channel hillslope, channel & hydrologic processes characteristics 20. Hillslope processes 19. Bedload transport (introduced sed. supply) (stream power) 21. Output: introduced hillslope sediment 22. Sed. transport changes, 23. Entrainment competency excess power and/or sediment calculation: bar, bed samples 24. Aggradation Potential 25. Degradation, BHR ER, **Deposition & Meander Patterns** excess flow 26. Enlargement Summary analysis 27. Stream succession state shift 29. Departure analysis: compare to baseline 28. Output: total sediment sediment yield summary tons/yr Interpretation of all analyses for potential Effectiveness and consequences of instability/sediment changes validation monitoring that affect beneficial uses: revised management direction, mitigation, restoration